



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/397,414	09/16/1999	H. ROSS WILLIAMS	0200110	8705
25700	7590	05/26/2004	EXAMINER	
FARJAMI & FARJAMI LLP 26522 LA ALAMEDA AVENUE, SUITE 360 MISSION VIEJO, CA 92691			TIEU, BINH KIEN	
			ART UNIT	PAPER NUMBER
			2643	17

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/397,414

Applicant(s)

WILLIAMS, H. ROSS

Examiner

BINH K. TIEU

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-48 and 52-54 is/are allowed.
- 6) ☒ Claim(s) 1-20 and 49-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 8-11, 13-14, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263 as cited in the Office Action mailed on 8/19/03) in view of Bremner (U.S. Pat. #: 6,377,681).

Regarding claim 1, Sun et al. ("Sun") teaches an apparatus, such as PCI/modem card 150 as shown in figure 4, for interfacing customer premises equipment (i.e., Computer C) with a telephone network (i.e., PSTN 206, Fig. 2), comprising:

an interface within the customer premises equipment (i.e., the modem card 150 within the computer "C") that is coupled to the telephone network (i.e., to PSTN 206), the interface comprising a current source (i.e., power supply 414 in figure 4) provides a constant current to the customer premises equipment when the customer premises equipment is off-hook (i.e., providing power to computer "C" when it is in either "ON" mode or "SLEEPING" mode, col.6, lines 20-39 and col.7, lines 5-55); and

a tip conductor and a ring conductor, both the tip line and the ring conductors are coupled to the interface (see POTS line 202 in figure 2).

Art Unit: 2643

It should be noticed that Sun teaches the power supply 114 operating as a current source to provide the constant current to the customer premises equipment when it goes off-hook. Sun fails to clearly teach the power supply 114 providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook. However, Bremner teaches such well-known features in the Abstract of the Patent, col.1, lines 20-33; col.4, lines 10-42 for a purpose of preventing noise from having a modem and/or at telephone to go off-hook, or having it go back on-hook if it was off-hook.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook, as taught by Bremner, into view of Sun in order to maintain the average DC biasing current of a data signal.

Regarding claim 3, Sun further teaches limitations of the claim as the PSTN 206 providing POTS service on POTS line 202 as shown in figure 2, col.4, lines 46-49.

Regarding claim 4, Bremner teaches the current source comprising FET 42 as shown in figure 2.

Regarding claim 5, Bremner further teaches limitations of the claim in col.1, lines 22-25.

Regarding claim 8, Sun further teaches limitations of the claim in Figure 6.

Regarding claim 9, Sun teaches an apparatus, such as PCI/modem card 150 as shown in figure 4, at a customer premises (i.e., Computer C) is coupled to a telephone network (i.e., PSTN 206, Fig. 2), comprising:

Art Unit: 2643

a receiver (i.e., Receiver as shown in figure 6);

an interface coupled to the receiver and the telephone network (i.e., the modem card 150 within the computer "C") that is coupled to the telephone network (i.e., to PSTN 206));

the interface comprising a current source (i.e., power supply 414 in figure 4) provides a constant current to the customer premises equipment when the customer premises equipment is off-hook (i.e., providing power to computer "C" when it is in either "ON" mode or "SLEEPING" mode, col.6, lines 20-39 and col.7, lines 5-55); and

a tip conductor and a ring conductor, both the tip line and the ring conductors are coupled to the interface (see POTS line 202 in figure 2).

It should be noticed that Sun teaches the power supply 114 operating as a current source to provide the constant current to the customer premises equipment when it goes off-hook. Sun fails to clearly teach the power supply 114 providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook. However, Bremner teaches such well-known features in the Abstract of the Patent, col.1, lines 20-33; col.4, lines 10-42 for a purpose of preventing noise from having a modem and/or at telephone to go off-hook, or having it go back on-hook if it was off-hook.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook, as taught by Bremner, into view of Sun in order to maintain the average DC biasing current of a data signal.

Art Unit: 2643

Regarding claim 10, Bremner teaches the current source comprising FET 42 as shown in figure 2.

Regarding claim 11, Sun further teaches PSTN 206 providing POTS service on POTS line 202 as in figure 2, col.4, lines 46-49.

Regarding claim 13, Sun further teaches limitations of the claim in Fig. 4.

Regarding claim 14, Sun further teaches limitations of the claim in Fig. 6.

Regarding claim 16, Bremner further teaches limitations of the claim in col.1, lines 22-25.

Regarding claim 17, Sun teaches a method of providing a constant current to an apparatus, such as the modem card 150 shown in figure 4, coupled to a telephone network (i.e., PSTN 206, Fig. 2), comprising the steps of:

connecting the apparatus to a tip and a ring conductor (i.e., connecting the modem card 150 to POTS line as shown in Fig. 2); and

taking the apparatus off-hook (i.e., modem card in “ON” mode or operational mode) (col.6, lines 20-39 and col.7, lines 5-55).

It should be noticed that Sun teaches providing power supply to the modem card. Sun fails to clearly teach the features of sinking a constant DC bias current while off-hook, where the DC bias current is independent of a load on the tip and the ring conductors. However, Bremner teaches such well-known features in the Abstract of the Patent, col.1, lines 20-33; col.4, lines 10-42 for a purpose of preventing noise from having a modem and/or at telephone to go off-hook, or having it go back on-hook if it was off-hook.

Art Unit: 2643

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook, as taught by Bremner, into view of Sun in order to maintain the average DC biasing current of a data signal.

Regarding claim 18, Sun further teaches PSTN 206 providing POTS service on POTS line 202 as in figure 2, col.4, lines 46-49.

Regarding claim 20, Bremner further teaches limitations of the claim in col.1, lines 22-25.

3. Claims 2, 6, 12, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263) in view of Bremner (U.S. Pat. #: 6,377,681) as applied to claims 1, 9 and 17 above, and further in view of Seazhotz et al. (U.S. Pat. #: 5,737,706 as cited in the previous Office Action).

Regarding claims 2 and 12, Sun and Bremner, in combination, teaches all subject matters as claimed above. Sun further teaches the POTS line 202 connected subscriber premises equipment to either or both PSTN 206 and Broadband Network 208 for voice and data communications purposes. Therefore, other interfaces or protocols are also used for such data transmissions. Such protocols included, for example, EIA/TIA-496-A interface between Data Access Arrangement (DAA) or Data Circuit Terminating Equipment (DCE) of a modem and the PSTN was provided in November 1989, or EIA/TIA-578 interface for asynchronous Facsimile DCE control standard, provided in May 1987, etc. However, Sun fails to clearly teach such

Art Unit: 2643

EIA/TIA-496-A interface. Seazholtz et al. (Seazhotz) teaches radio communication devices such as portable telephone set and a base station for data communications there between providing a plurality of different interface included EIA/TIA-496-A interface (col.23, line 66 – col.25, line 15) for handling a particular data communications.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of such EIA/TIA-496-A interface, as taught by Seazhotz, in view of Sun and Bremner in order to provide necessary electrical interface criteria for modem data transmissions.

Regarding claims 6, 15 and 19, Seazhotz further teaches the telephone network is Centrex or PBX system (col.11, lines 13-23).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263) in view of Bremner (U.S. Pat. #: 6,377,681) as applied to claim above, and further in view of Damoci et al. (U.S. Pat. #: 4,958,371 as cited in the previous Office Action).

Regarding claim 7, Sun and Bremner, in combination, teaches all subject matters as claimed above, except for the apparatus further comprising an off-hook delay. However, Damoci et al. ("Damoci") teaches such well-known off-hook relay in col.2, lines 42-60 for a purpose of causing the voltage between tip and ring of the telephone line to be presented to telephone circuitry.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of the well-known off-hook delay, as taught by

Art Unit: 2643

Damoci, into view of Sun and Bremner in order to indicate the status of telephone line to be either off-hook or on-hook condition.

5. Claims 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263) in view of Bremner (U.S. Pat. #: 6,377,681) as applied to claim above, and further in view of Gray et al. (U.S. Pat. #: 5,454,031 as cited in the previous Office Action).

Regarding claims 49-51, Sun and Bremner, in combination, teaches all subject matters as claimed above, except for the feature of drawing constant current from the telephone network. However, Gray et al. ("Gray") teaches such feature in col.6, lines 5-16 for a purpose of providing power to elements of a meter interface unit (MIU) when it is in off-hook condition.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of the well-known feature of drawing power from telephone network, as taught by Gray, into view of Sun and Bremner in order to maintain and provide sufficient power to elements of the circuit when it is in off-hook condition.

Allowable Subject Matter

6. Claims 21-48 and 52-54 are allowed.

Response to Arguments

7. Applicant amended to independent claims 1, 9 and 17 in order to bring the scopes of the claims as previously presented in the amendment filed and dated 06/30/2003 had been noted.

Applicant's remarks discuss the references applied against the claims and points out

Art Unit: 2643

disagreements with the examiner's contentions had also been noted. Therefore, according to such remarks, this Office Action is made None-Final Office Action. The Examiner believes that the Patent Office has properly considered all the applicant's arguments. The Examiner also believes that it would be manifestly fair the Applicant's arguments. It should be also understood that the next Office Action will be made Final, according to the case law, if the Applicant would amend to all independent claims 1, 9 and 17 in order to overcome the applied prior art. It is manifestly fair for the Examiner on the searching of the prior art, said Bremner reference.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).



**BINH TIEU
PRIMARY EXAMINER**

Art Unit 2643

Date: May 29, 2004